RAPID TRANSPORT SERVICE IN A NETWORK
TO PERIPHERAL DEVICE SERVERS

ABSTRACT

A low latency peripheral device sharing system has a host computer with an operating system, a kernel memory buffer, applications, device specific drivers, and a peripheral server driver. The server driver intercepts function calls invoking the local serial ports, and passes standard serial data from the application to a local area network. A device server on the local area network reads the data using a hybrid read block (semi-blocking read), and writes the data to the FIFO registers of the serial device and the remaining data to a queue for the serial device. Finally, the device server times the serial data and returns an intercharacter interval timer flag to the host computer to terminate a read operation.